

REMARKS

In response to the above Office Action, claims 1-12 have been amended to more accurately claim applicants' invention, to delete improper multiple dependency, to delete improper preferably clauses and generally to place the claims in more traditional U.S. format. New claims 13-16 cover subject matter deleted from the claims from which they depend.

Applicants' invention as set forth in amended claim 1 relates to an improvement in a process for the polymerization or copolymerization in the gas phase of olefin(s) by bringing the olefin(s) into contact, under polymerization or copolymerization conditions in a reactor in which the polymer or the copolymer is maintained in a fluidized bed and/or agitated with mechanical stirring, with a catalyst system, the improvement comprising, prior to the introduction of the catalyst system in the reactor, subjecting the reactor to a cleaning treatment that includes the steps of introducing into the reactor an alkane having from 4 to 8 carbon atoms, circulating said alkane across the reactor under pressure and elevated temperature, and then depressurizing and purging the reactor of the alkane.

As discussed in the specification, applicants unexpectedly found that this alkane treatment lead to smooth and improved polymerization start-ups of the polymerization process as shown in the Examples. See page 3, lines 9-15 of the specification.

In the Office Action the Examiner rejected claims 1-12 under 35 U.S.C. §102(b) for being anticipated by EP 0 180420 to Durant et al. (hereafter Durant) on the grounds that Durant discloses in the working examples and particularly on page 18, line 1 to page 19, line 4, all of the steps of the claimed process.

The essential feature of applicants' invention is the alkane cleaning treatment of the reactor as a pre-start operation. This treatment occurs "prior to the introduction of the catalyst system in the reactor" in which treatment, the alkane is circulated across the reactor "under pressure and elevated temperature," followed by "then depressurizing and purging the reactor of the alkane." All of these steps of the treatment process are performed "prior" to catalyst addition.

On page 18, lines 1-16 of Durant there is disclosed the preparation of a catalyst (A). On page 18, lines 17-27 of Durant there is disclosed the preparation of a prepolymer (B) using the catalyst (A). In this process, while an alkane, n-hexane, is being added to a reactor under an elevated temperature prior to the introduction of catalyst (A), it does not appear the hexane is circulated in the reactor under pressure. More importantly, the reactor is not subsequently depressurized and purged of the alkane before the catalyst is added to the reactor. Rather, the hexane remains in the reactor when the catalyst is added to it. See page 18, lines 19-23 of Durant.

On page 18, line 28 to page 19, line 4 of Durant there is disclosed a process for the start up of polymerization in a fluidized bed reactor in which the reactor (which is not the same reactor where the prepolymer is formed) is first subjected to a purging operation consisting in successive operations of pressurizing the reactor with nitrogen followed by depressurizing before any catalyst is added to the reactor. In this process, while there may be a depressurizing and purging step prior to the introduction of catalyst into the reactor, there is no alkane in the reactor at this time. Consequently, the reactor is not purged of any alkane in the depressurizing and purging steps as required by applicants' claims.

While n-hexane is added later to the reactor as part of the start up process (page 19, lines 18-22), no depressurizing of the reactor or purging of it of this n-hexane occurs before any catalyst is added.

The Examiner appears to have somehow combined the preparation of the prepolymer (B) with the start up of the fluidized bed reactor and the nitrogen purge. However, these are two separate operations, the prepolymer (B) not being added to the reactor until after the purging steps. See page 19, lines 20-22.

Accordingly, for all of the above reasons, it is not seen how claim 1 or claims 2-12 as well as new claims 13-16 dependent therefrom can be considered to be anticipated by Durant. Its withdrawal as a ground of rejection of the claims under §102(b) is therefore requested.

It is believed claims 1-16 are in condition for allowance.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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